Plastering and Whitewashing in the Middle Ages.—In the thirteenth century lime was sold by the bag, as at present, as well as by the hundred weight: in preparing it for mortar, it was mixed with sand, and occasionally with pounded tyle, a fact which may tend to correct the haste with which some antiquaries pronounce fragments of mortar in which that ingredient appears, wherever they may occur in mediæval buildings, to be of Roman origin. At whatever period the use of gypsum may have been introduced into this country for plastering and whitewashing internal stone-work, it was certainly known by its present name of plaster of Paris, very early in the thirteenth century. Plasterers and whitewashers (*dealbatores*) are mentioned in the London assize of the year 1212; and Necham, writing in the twelfth century, alludes to smoothing the surface of the wall by the trowel. We are not to consider the practice of whitewashing stone-work as a vice peculiar to modern times. Our ancestors had as great an objection to the natural surface of stone, whether in churches or other buildings, as any churchwardens or bricklayers of the nineteenth century. Several writs of Henry the Third are extant, directing the Norman chapel in the tower to be whitewashed: Westminster Hall was whitewashed for the coronation of Edward the First; and many other ancient examples might be cited. In fact, it seems to have been the rule to plaster ordinary stone-work: for instance, when Newgate was repaired in 1282, two new windows of free-stone were constructed in the chamber where the justices sit, yet the accounts of the architect has this item: "In plaster of Paris bought to plaster the windows and the chamber where the justices sit within,—13s. 4d. In the wages of a plasterer and his servant, four days, 2s. 8d."—*Turner's Domestic Architecture in England.*

Ventilation of the House of Lords.—In reply to a recent complaint about the state of the ventilation of the House, made by the Earl of St. Germans, who recommended experiments with Mr. Goldsworthy Gurney's steam jet, the Marquis of Lansdowne stated, that in consequence of some buildings not being yet removed, great impediments had hitherto stood in the way of a free current of air in the house; but that he understood that Mr. Barry had been in communication with Mr. Gurney on the subject of ventilation, and he hoped their lordships would be in a very different position in that respect by next year.

Museum of Casts.—At a sectional meeting of the Archæological Institute, held previous to the close of proceedings at the Bristol congress, a resolution was passed to the effect that the formation of a complete collection of copies of the most admired and instructive sculptures of all ages is very desirable, and that a portion of the building in Hyde Park might be very properly and consistently devoted to this purpose.

St. George's Hall, Bradford.—The works in this building were let last week, when the result of the tenders gave the cost of the building complete 10,318*l.* 16s. The following is a list of the accepted tenders:—

Burnley and Sons	£5,550 Masons.
Crabtree	2,790 Joiner.
Barker	697 Plasterer.
Onions and Wheelhouse	427 Ironfounders.
Bellens	330 Plumber.
Joseph Hill and Son ..	166 Slaters.
Briggs and Mossforth ..	87 Painters.
Mawer	270 Carver.
Total cost	£10,318

The tenders for Mason's work were:—

Moulson	£6,100
Beanland and Glidhill.....	6,050
Wilson and Sons.....	6,032
Pearsley and Weinwright ..	6,000
Leach	5,674
Burnley	5,550

Those for the Carpenter and Joiner's work were:—

Illingworth	£3,575
Neill.....	3,180
Wilson	3,125
Taylor	2,997
Hill	2,887
Crabtree	2,790

Odds and Ends in Naval Architecture.—A gentleman of independent means, residing in Manchester, has invented and patented a revolving sail ship, a model of which, 23 feet in length and 6 feet beam, he has been exhibiting in the Mersey. Its prominent feature, says the *Liverpool Times*, consists in the introduction of a set of revolving sails, sixteen in number, similar to the fans of a windmill; which are elevated on a wheel, and attached to a spindle. As soon as the wind touches the sails, they instantly set in motion the spindle, which, acting upon a very simple piece of machinery, propels a couple of paddles. The objects attained are greater speed by means of the paddles, and the advantage of sailing against a head wind. The sails can be pointed with ease to any point of the compass. Head or contrary winds are not recognised, a stiff breeze being all that is requisite to propel the vessel.——An instance of prompt invention in a case of necessity occurred in course of last winter on board the *Warren*, on her way to New York from Glasgow, with passengers. The ship lost her rudder, and in this critical emergency the captain, Mr. J. G. Lawton, while his vessel was in the act of driving helplessly to apparent destruction, without an article on board more eligible than pig-iron, with that and some cable formed an extempore rudder, with which he guided his vessel and its valuable freight to the port of destination. A model of the contrivance is said to have been sent to the International Exhibition.——The excursion system seems to be astonishing our inland rustic population in the meantime with those "wonders of the deep" with which it will soon familiarize them. The following instance, adduced by the *Lancaster Gazette*, is in point. Two rustics who lately arrived at Poulton, by an excursion train from Yorkshire, were rambling about the shore, when one of them discovered a large anchor on the beach. Never having seen such a thing before, he was struck with astonishment, but at last the happy thought struck him that he had discovered its use, and, turning to his companion he exclaimed, "Loo' thee, Bill, what a greet meety pick-axe!"

London Baths and Washhouses for the Labouring Classes.—The following is a return for the month ending July 31, 1851:—

Establishment.	Bath Department.		Wash-house Department.		
	Number of Bathers.	Total Receipts.	Number of Washers.	Number of Hours Wash-ing, &c.	Total Receipts.
		£ s.d.			£ s.d.
The Model, Whitechapel	22,411	297 2 8	3,958	7,213½	38 1 7
St. Martin-in-the-fields	29,803	458 8 9	4,861	10,423½	51 11 9
St. Marylebone	32,262	396 2 6	2,020	5,880	24 7 6
St. Margaret and St. John, Westminster	20,380	228 8 4	1,150	2,504	12 0 3
Totals.....	104,856	1380 2 3	11,989	26,021	126 1 1

Railway to Galway.—According to a correspondent, the Shannon bridge, wholly of iron, except the land abutments, is 500 feet in length; has a swivel opening in the centre, giving two passages, each 43 feet wide, for the passage of vessels navigating the river; and contains, besides two spans of 165 feet each, one of 50 feet and one of 40 feet. The total quantity of iron employed in this structure is about 1,200 tons. The river Suck is spanned by three openings of 75 feet each, composed of girders on the tubular principle, and the Lough Athalia bridge has a swivel of the large dimensions of 160 feet in length by 34 feet wide; opening at once two passages for vessels of 60 feet each. The moving portion of this swivel bridge weighs about 200 tons, and is worked by a hand gearing. Some very extensive drainage operations were necessary, in conducting the railway over numerous deep bogs intersecting its course, and these, together with the various earthworks, bridge, and other buildings, fencing, earthing, cutting timber, laying rails, &c. gave the desired employment to a staff of labourers and artisans of every description, varying from 6,000 men in the winter months, to 9,000, and part of the time 10,000 men, during the summers of 1850 and 1851. The greatest regularity and order prevailed on the works, and with the exception of very trifling attempts now and then to extort higher wages, a uniform contentment was the general spirit of the men. Every fortnight the wages were distributed in hard cash, and no one was allowed to establish any truck system in connection with the works. The wages were from 8s. to 10s. per week for labourers, and 3s. to 3s. 6d. per day for masons and carpenters.

Zinc Blasting in America.—The miners engaged in the zinc-mines of the New Jersey Exploring and Mining Company, at Sterling-hill, Sussex county, are said to have lately put in a sand blast, by which about 400 tons of zinc ore, of pure quality, were thrown down on the bank.

The Marquis of Westminster's Gallery.—Every one knows the excellence of this collection of works of art, and we mention it now simply that we may bear witness, in spite of adverse statements, to the noble owner's willingness to allow an inspection of its treasures. The *coup-d'œil* of the gallery itself is very good. There are nearly 200 paintings, and those who have seen them will not have forgotten, amongst others, Rubens's portraits of himself and his first wife (the pretty creature); Guido's "Infant Jesus sleeping, with the Madonna watching;" and Salvator Rosa's portrait of his own intelligent, melancholy face; Yuccarelli's "Macbeth and the Witches;" Claude's "Golden Calf;" "Mrs. Siddons as the Tragic Muse," by Reynolds; "A Head of John the Baptist," by Carlo Dolci; a wonderful Hobbema; and the beautiful "Bit of Lance," by Von Huysum.

Books for the National Library.—Mr. Chapman, the publisher, we perceive, has been charged with having neglected to furnish the British Museum with a copy of a recent work. How long are authors to be thus taxed for behoof of the public? Ought not the public rather to be taxed for behoof of authors? At least it would be but just that the public should pay for the books supplied to their national library. Justice to the library itself demands it; for under the present system the shortcomings are the rule and the supply the exception, and so will it ever be until the Legislature place the national library on a proper footing in this respect. And what would all the additional expense be when the attainment of so desirable an end as the *bonâ fide* and actual accumulation of copies of every work published is considered?

Cleansing of Metal Castings.—In the old process of cleansing of metal castings, by water containing sulphuric or hydrochloric acid, the coating is more or less perfectly removed, but the surfaces are left rough and unequal. Messrs. Thomas and Delisse found that the coating was removed from cast surfaces with great certainty, when, to water acidulated with sulphuric acid, organic matter, such as glycerine, artificial tannin, naphthaline, creosote, or stearine was added. This acid liquor does not dissolve the coating, but detaches it, and causes it to scale off, leaving untouched the metal below. By this process, which is peculiarly applicable to the cleansing of zinc and brass, sixty per cent. of acid is saved, and not half as much metal lost as in the old process. But the organic substances mentioned above being difficult to procure in many instances, M. Elsner applied himself to discover some cheaper and more easily procurable organic matter which would answer as well, and he has found that both wood and coal tar answer perfectly well. A piece of iron casting was immersed in a mixture of tar and dilute acid, and was completely cleansed; without any disengagement of hydrogen gas, the surface being left of a clear, grayish-black colour, quite clean and smooth, and totally unattacked by the acid. A similar casting immersed in the solution ordinarily used in this process was almost wholly dissolved in an equal time. —*Technologiste.*